United States Patent [19]

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[11] 3,837,342

[45] Sept. 24, 1974

[54] EXCREMENT RECEIVING BAG FOR ARTIFICIAL ANUS

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[22] Filed: Aug. 23, 1972

[21] Appl. No.: 283,228

[52] U.S. Cl. 128/283, 128/DIG. 24

[51] Int. Cl. A61f 5/44

[58] Field of Search ..... 128/275, 283, DIG. 24

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[57] ABSTRACT

A flattened tube of flexible sheet material has first and second elongated walls united along their longer edges to form the tube. The second wall is wider than the first wall and has at least one pleating extending longitudinally substantially centrally thereof. When the pleating is folded, the effective width of the second wall is reduced to the width of the first wall so that the two walls are superposed to form an initially flat tube. The ends of the tube may be closed in a suitable manner, preferably by means of plastic zippers so that the bag may, if desired, be vented. A layer of pressure sensitive adhesive is applied to the outer surface of the first wall near one end thereof, and a peelable cover sheet of paper or the like is adhered to the adhesive and has a plurality of concentric circles delineated on its outer surface each having a diameter corresponding to that of a respective artificial anus. The cover sheet has a perforated fold line extending diametrically of the smallest circle so that the first wall and the cover sheet are foldable along this perforated fold line to form superposed congruent semicircles. The cover sheet and the first wall may be cut along a selected pair of congruent semicircles to form a circular opening corresponding to a respective artificial anus, and the cover sheet is then peeled from the adhesive to expose the adhesive for contact with the body of the user. During use of the bag, the second wall expands by opening of its pleating, to accommodate the excrement.

1 Claim, 4 Drawing Figures

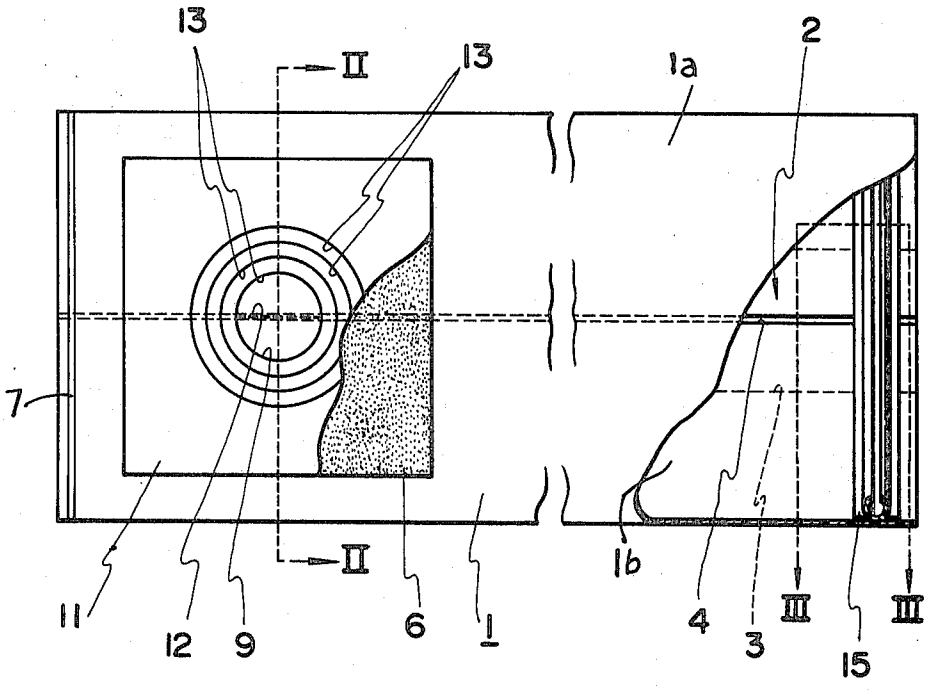


FIG. 1

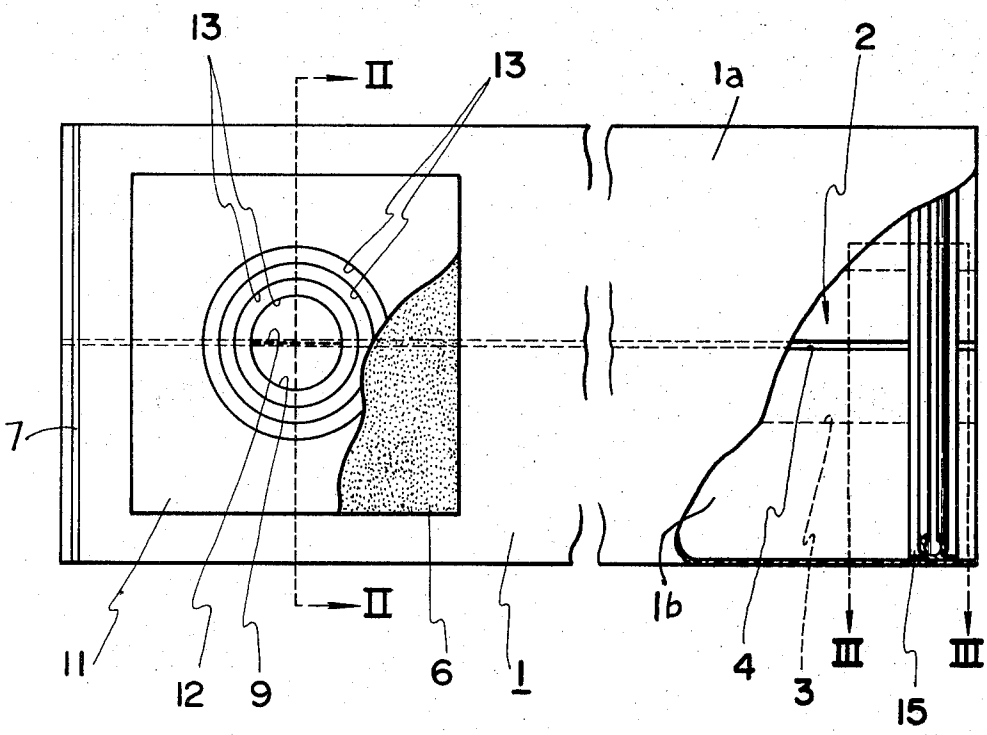


FIG. 2

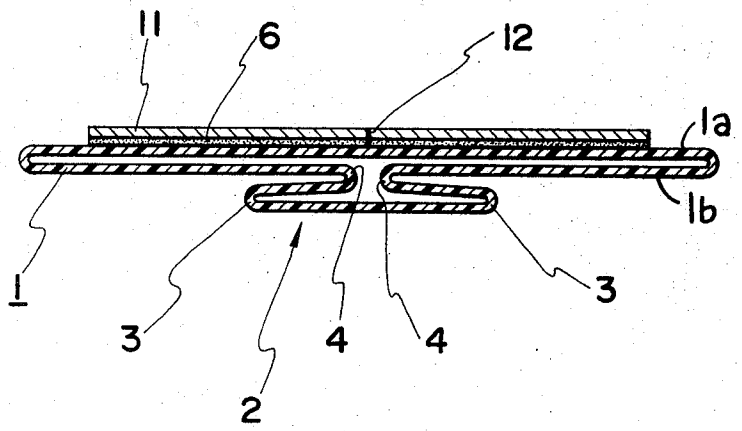


FIG. 3

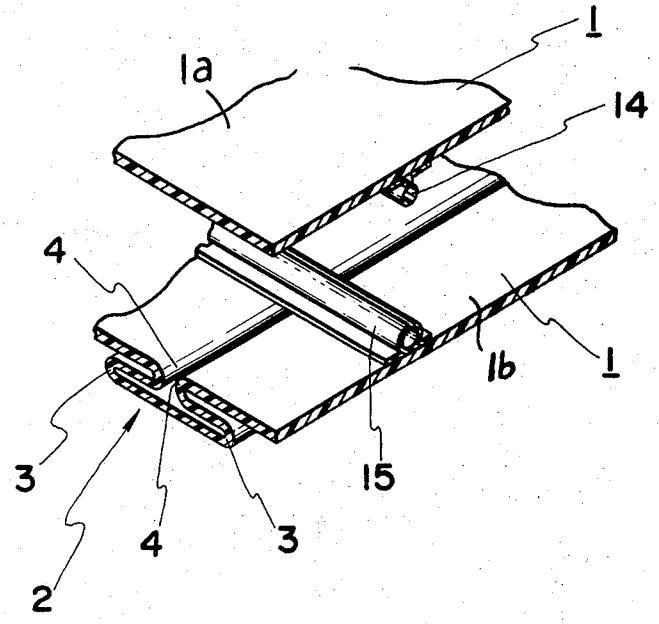
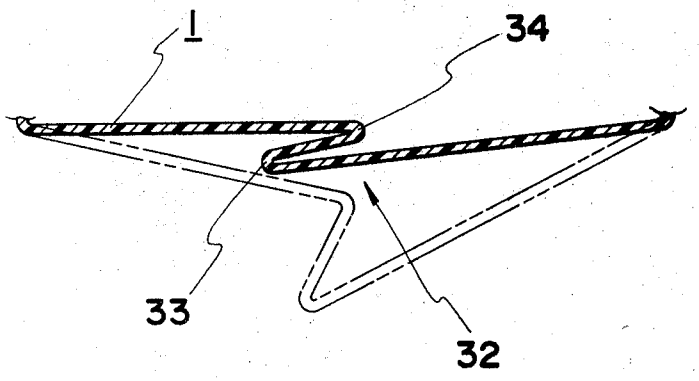


FIG. 4



EXCREMENT RECEIVING BAG FOR ARTIFICIAL ANUS

FIELD AND BACKGROUND OF THE INVENTION

This invention relates to excrement receiving bags for use with an artificial anus and, more particularly, to an improved, simplified and economical construction of such an excrement receiving bag.

With known excrement receiving bags for use with an artificial anus, it has been difficult to perforate and cut-off an accurate circular line of the required dimensions for receiving the artificial anus. This difficulty is present even when one wall of a conventional excrement receiving bag is folded for the purpose of cutting out a circular piece of the wall. Additionally, conventional excrement receiving bags contain returns sheets between the inner and outer surfaces to effect a compactly charged condition. Finally, conventional excrement receiving bags have a limited capacity.

SUMMARY OF THE INVENTION

The object of the present invention is to improve the functions of a conventional excrement receiving bag for an artificial anus. For this purpose, the excrement receiving bag of the invention comprises a pair of superposed elongated walls of flexible sheet material united along their longer edges to form a tube. One of these walls has one or several pleats extending longitudinally thereof and initially folded so that the two walls are equal in width. The other wall has a layer of pressure-sensitive adhesive applied to its exterior surface, and a cover sheet, of paper or the like, is adhered to the adhesive. This cover sheet has a plurality of concentric circles delineated on its outer surface, and each having a diameter corresponding to that of a respective artificial anus. Preferably, at least one end of the tube is releasably sealed by a plastic zipper, and the other end of the tube may be heat-sealed or may also have a plastic zipper.

To use the bag, the cover sheet and the wall to which it is secured are folded about the perforated fold line to form superposed congruent semicircles, and the cover sheet and the adjacent wall of the bag are cut along a selected semicircle to form a circular opening corresponding to a respective artificial anus. The cover sheet is then peeled away from the adhesive so that the adhesive may be used to adhere the bag to the body of the user. During use, the pleated wall expands by flattening of its pleats, and the bag may be vented by opening the plastic zipper.

An object of the invention is to provide an improved excrement receiving bag for use with an artificial anus.

Another object of the invention is to provide such a bag in which an inlet opening, conforming to a respective artificial anus, may be easily cut in a wall of the bag.

A further object of the invention is to provide such a bag which has a large capacity and which may, if desired, be vented at at least one end.

For an understanding of the principles of the invention, reference is made to the following description of typical embodiments thereof as illustrated in the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. 1 is a plan view, partially broken away, of an excrement receiving bag embodying the invention;

FIG. 2 is a transverse sectional view on the line II—II of FIG. 1;

FIG. 3 is a sectional view on the line III—III of FIG. 1; and

FIG. 4 is a view, similar to FIG. 3, illustrating a modification of the bag.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring first to FIGS. 1, 2 and 3, the bag 1 is in the form of an initially flattened tube of flexible sheet material, such as a thin plastic. In the flattened condition, bag 1 comprises a first elongated and substantially rectangular wall 1*a* and a second elongated and substantially rectangular wall 1*b*. Wall 1*b* is substantially wider than wall 1*a*, and has a pleating 2 extending centrally and longitudinally thereof and formed by folds 3, 3 and 4, 4, as best seen in FIG. 2. When pleating 2 is folded, as illustrated in FIG. 2, the effective width of wall 1*b* is equal to the width of wall 1*a*.

Near one end, the outer surface of wall 1*a* has a layer 6 of pressure-sensitive adhesive applied thereto, as illustrated in FIG. 1, and pressure-sensitive adhesive 6 is covered by a peelable cover sheet 11, of paper or the like, which is preferably congruent with the layer 6. As illustrated solely by way of example in FIG. 1, layer 6 and cover sheet 11 are square, although other configurations may be used.

Cover sheet 11 has delineated, on its outer surface, a plurality of concentric circles 13 each having a diameter corresponding to that of a respective artificial anus. The cover sheet is further formed with a perforated fold line 12 extending longitudinally of wall 1*a* and along the common diameter of the circles 13. While perforated fold line 12 is illustrated as extending along the diameter of only the innermost circle, it could extend throughout all of the circles if desired.

One end of bag 1 may be closed by heat-sealing, as indicated at 7. However, the opposite end of bag 1 preferably is provided with a plastic zipper or separable fastener 14, 15, with element 14 being secured to the inner surface of wall 1*a* and element 15 being secured to the inner surface of wall 1*b*.

To use the bag, wall 1*a* and cover sheet 11 are folded along perforated fold line 12 to form superposed congruent semicircles out of circles 13. The folded material is then cut along a selected pair of congruent semicircles, corresponding to the respective artificial anus to be used, to cut out a circle from wall 1*a* and cover sheet 11. Cover sheet 11 is then peeled away from adhesive layer 6, leaving layer 6 exposed for adherence to the body of the user.

During use of the bag, the wall 1*b* expands due to flattening out of its pleating 2, thus providing room for a greatly increased amount of excrement to be received within the bag and without affecting the outer surface of the bag, particularly the wall 1*a*. Instead of the adhesive layer 6 being used to adhere the bag to the body of the user, it can be adhered to the artificial anus.

The most important feature of the invention is the provision of the cover sheet 11 with the concentric circles 13 and the perforated fold line 12, as this permits

the folding of the wall **1***a* and the cover sheet **11** about the perforated fold line **12** to make it very simple and easy for the user to use a pair of scissors to cut along one pair of superposed congruent semicircles formed from the circles **13**. Thereby, a round perforated hole in wall **1***a* can be formed accurately without any slipping or inadvertent cutting of wall **1***a*.

Removing the cover sheet **11** leaves a round opening for receiving excrement, this opening corresponding in size to the respective artificial anus to be used, which can be stuck to the surface of wall **1***a* through the medium of pressure-sensitive adhesive layer **6**. With the wall **1***b* being provided with pleating, as shown in FIGS. **2** and **3** in particular, the width of the wall **1***b* can be greatly increased, thus greatly increasing the capacity of the bag. As compared with conventional bags containing a returning sheet between the two walls to provide a compactly charged condition, the present invention can effectively utilize the space formed by the pleats. Furthermore, the provision of the plastic separable fastener **14, 15** provides for venting air from the bag during application thereof.

FIG. **4** illustrates an alternative embodiment of the invention, in which the pleating **32** is formed by only two folds **33** and **34**. The arrangement shown in FIG. **4** operates in the same manner as does that shown in FIGS. **1, 2** and **3**, the only difference being the provision of the pleating **32** in place of the pleating **2**.

While specific embodiments of the invention have been shown and described in detail to illustrate the application of the principles thereof, it will be understood that the invention may be embodied otherwise without departing from such principles.

What is claimed is:

1. An excrement receiving bag, for use with an artificial anus, comprising, in combination, flexible sheet means forming first and second unitary imperforate elongated walls united along their longer edges to form an elongated tube, said second wall being wider than said first wall and having at least one pleating, very substantially narrower than said first wall, extending longitudinally substantially centrally thereof and, when folded, reducing the effective width of said second wall to the width of said first wall, whereby the two walls are superposable to form an initially flat tube; means closing the ends of said tube; a layer of pressure-sensitive adhesive on a relatively small area of the outer surface of said first wall; a peelable cover sheet adhered to and covering said adhesive layer and having a plurality of concentric circles delineated on its outer surface, each having a diameter corresponding to that of a respective artificial anus; said cover sheet having a perforated fold line extending diametrically of said circles and along the longitudinal center line of said first wall; said first wall and said cover sheet being foldable along said perforated fold line to form superposed congruent semicircles which are selectively severable from said unitary imperforate first wall to form a circular opening corresponding to a respective artificial anus; said second wall expanding, during use of the bag, by opening of its pleating, to accommodate excrement, said cover sheet being peelable from said adhesive to expose said adhesive for contact with the body of the user or with an artificial anus.

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